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Images in Clinical Tropical Medicine A Woman from Honduras with a Painful Forearm and Fever

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A 33-year-old woman presented with a chief complaint of pain in her left forearm (fractured radius). She had recently arrived in Missouri from Honduras via Texas. She stated that she had fallen and injured her arm when she was fleeing border agents. A routine review of systems revealed a history of fever with shaking chills. In addition to a swollen, tender forearm, she had a temperature of 39.2°C, pallor, and splenomegaly. Her blood hemoglobin level was 6.6 g/dL with 5% reticulocytes. Thin blood smears showed heavy *Plasmodium vivax* infection (~10,000 parasites/µL or about 1%) with characteristic ameboid trophozoites in young erythrocytes (Panel A), gametocytes (Panel B), and schizonts (not shown). The presence of many multiply infected erythrocytes, with some cells containing three ring forms (Panel C), seemed unusual for P. vivax. However, Simpson and others reported that multiply infected cells occur more often in P. vivax infections than one would expect by chance; they are not uncommon in patients with high parasitemias, which rarely exceed 2% in vivax malaria.¹ This is believed to be related to the preference of P. vivax for young erythrocytes and reticulocytes. Be that as it may, we were concerned about dual infection in this patient because P. falciparum is also present in Honduras. The patient was successfully treated with mefloquine and later placed on primaguine. A blood specimen tested at CDC by PCR was positive for P. vivax only. This case reminds clinicians to have a high index of suspicion for malaria as a cause of fever in



FIGURE 1. Thin blood smears revealed *Plasmodium vivax* parasites. Panel A shows an ameboid trophozoite in a large erythrocyte; \mathbf{B} , a gametocyte with prominent pigment; \mathbf{C} , three ring trophozoites in a large erythrocyte. This figure appears in color at www.ajtmh.org.

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travelers and immigrants from the tropics including those from Central America.²

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